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(54) Title: COMPOSITION FOR PRODUCING A BARRIER LAYER FOR GASES

(57) Abstract: Organosilane-based composition for producing a barrier layer for gases, comprising (i) at least one organoalkoxysilane whose organofunctionality displays at least one unsaturated hydrocarbon group, (ii) at least one aminoalkylalkoxysilane, (iii) at least one polyol, (iv) optionally, another alkoxysilane or alkoxy siloxane, and (v) optionally, at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide, and/or (vi) at least one cocondensate composed of the components (i), (ii), (iii), and, optionally, (iv), and also, optionally, (v), and/or (vii) reaction products produced under hydrolysis conditions from the components (i), (ii), (iii), and, optionally, (iv), and also, optionally, (v) (viii) and organic solvent, with the proviso that there is a molar ratio (i) : (ii) : (iii) where (i) = 1 and (ii) = from 0.5 to 1.5, and (iii) = from 0.3 to 1.1. The invention also relates to a process for producing, and the use of, the composition, and to packaging materials produced using the composition.